3M™ Cubitron™ II Product Range

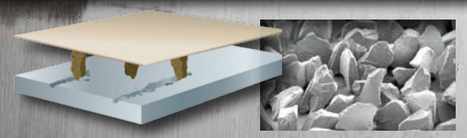
IT'S GRINDING REINVENTED.

CUBITRON™ II

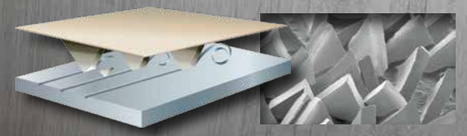
GRINDING REINVENTED

3M™ Cubitron™ II abrasives are revolutionising the grinding process. They're faster cutting and longer lasting than conventional abrasives wheels. With 3M™ precision-shaped grain technology that transforms the process of grinding metal,
Cubitron™ II abrasives:

- Cut faster
- Stay sharp longer
- Require less pressure
- Help reduce operator fatigue
- Increase productivity



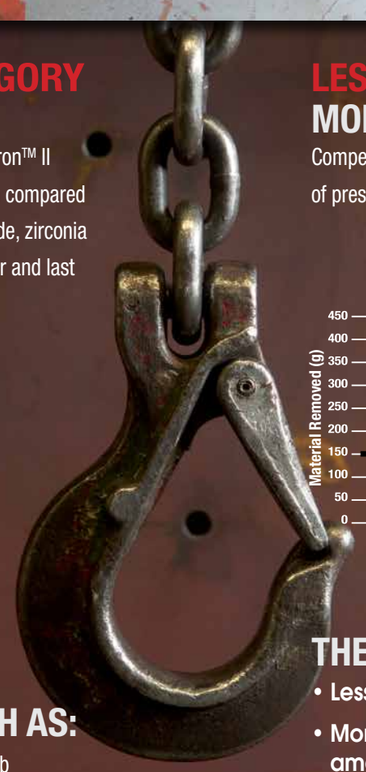
Conventional ceramic abrasive grain is irregular in shape. Instead of a clean, machining action, the grain "ploughs" through the metal, causing heat build-up, slower cutting and shorter life.



3M™ precision-shaped grain in Cubitron™ II abrasives continuously fracture to form sharp points and edges – slicing cleaner and faster, staying cooler and lasting many times longer.

CREATING A NEW CATEGORY OF PERFORMANCE.

3M™ precision-shaped grain technology in Cubitron™ II abrasives takes productivity to a new level. When compared to traditional abrasives made with aluminium oxide, zirconia or ceramic grain, Cubitron™ II abrasives cut faster and last longer.



3 REASONS WHY IT'S BETTER:

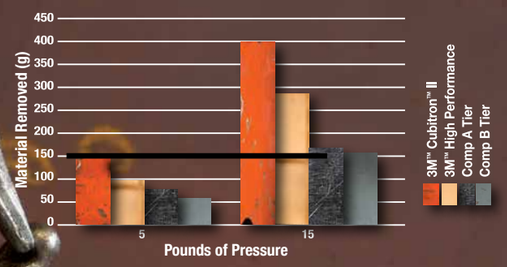
1. *Cuts faster - helps improve productivity and throughput*
2. *Lasts longer - helps save money*
3. *Easier to use - good for your workers, good for your business*

USED IN INDUSTRIES SUCH AS:

Ship Building • Structural Steel • General Met Fab
Oil and Gas • Agriculture, Industrial and Construction Machinery

LESS PRESSURE REQUIRED, MORE MATERIAL REMOVED.

Competitive products require up to three times the amount of pressure to match the cut of Cubitron™ II abrasives.



THE PAYOFF

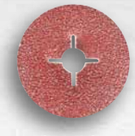
- Less wear and tear on your operators
- More material removed by the same amount of effort
- Improved productivity

Cubitron™ II Application Guide

Cut-Off Wheel

Cut and Grind Wheel

Depressed Centre Grinding Wheel



Fibre Disc

Flap Disc

Cubitron™ II Products

Applications	COWs*	Cut & Grind	DCGW's**	Fibre Discs	Flap Discs
Cutting	✓	✓			
Notching		✓			
Gouging		✓	✓		
Fillet Weld Removal		✓	✓		
Bevelling		✓	✓		
Flame Cut Soothing			✓	✓	✓
Scale Removal			✓	✓	✓
Weld Removal			✓	✓	✓
Contoured Areas					✓

Cubitron™ II products perform across a variety of applications and substrates.
This table demonstrates the most suitable product for your application.
*Cut Off Wheels **Depressed Centre Grinding Wheels

3M™ Cubitron™ II Cut-Off Wheels

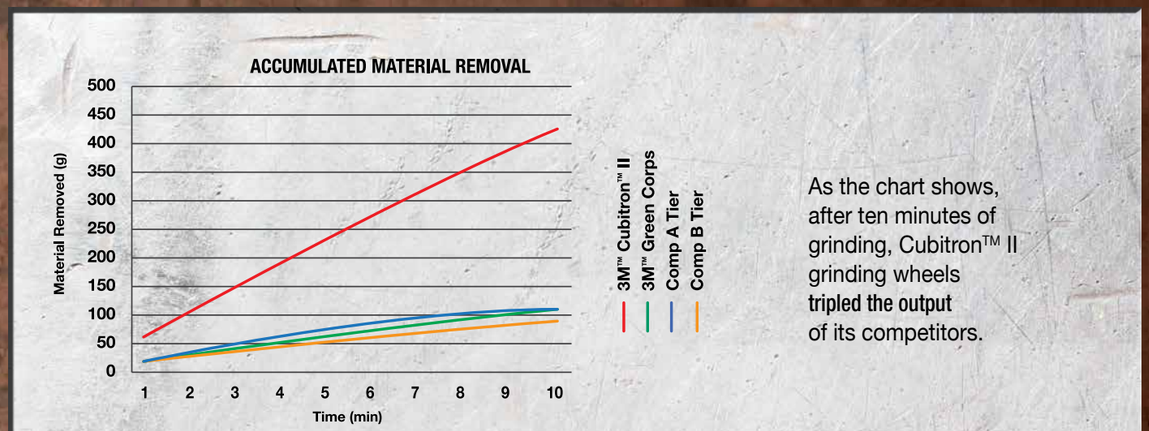
Performance Characteristics

- Premium Performance
- 3M™ precision-shaped grain for ultra fast cut and long life
- Specially formulated for use on stainless and mild steel
- Cool cutting for a higher quality and faster cut
- Fast, cool cutting helps extend the life of the tool

Part No.	Size (MM)	Characteristics		
		Type	Performance	Max RPM
65450	76 x 1 x 6.35mm	41	3M™ Cubitron™ II	25,450
65452	76 x 1 x 9.53mm	41	3M™ Cubitron™ II	25,450
65501	100mm x 2mm x 15.88mm	41	3M™ Cubitron™ II	15,300
65513	115mm x 1.0mm x 22.23mm	41	3M™ Cubitron™ II	13,300
65454	115mm x 1.6mm x 22.23mm	41	3M™ Cubitron™ II	13,300
65512	125mm x 1.0mm x 22.23mm	41	3M™ Cubitron™ II	12,200
65455	125mm x 1.6mm x 22.23mm	41	3M™ Cubitron™ II	12,200
65461	125mm x 2mm x 22.23mm	41	3M™ Cubitron™ II	12,200
65456	180mm x 1.6mm x 22.23mm	41	3M™ Cubitron™ II	8,500
65462	180mm x 2mm x 22.23mm	41	3M™ Cubitron™ II	8,500
65463	230mm x 2mm x 22.23mm	41	3M™ Cubitron™ II	6,650
65471	230mm x 2.5mm x 22.23mm	41	3M™ Cubitron™ II	6,650
65487	230mm x 3mm x 22.23mm	41	3M™ Cubitron™ II	6,650
65472	115mm x 2.5mm x 22.23mm	42	3M™ Cubitron™ II	13,300
65477	125mm x 2.5mm x 22.23mm	42	3M™ Cubitron™ II	12,200
65479	180mm x 2.5mm x 22.23mm	42	3M™ Cubitron™ II	8,500
65481	230mm x 2.5mm x 22.23mm	42	3M™ Cubitron™ II	6,650

3M™ Cubitron™ II Depressed Centre Grinding Wheels

Cubitron™ II depressed centre grinding wheels produce very high cut rates on a wide variety of metals. They are used for heavy weld removal and many other grinding applications.



As the chart shows, after ten minutes of grinding, Cubitron™ II grinding wheels **tripled the output** of its competitors.

3M™ CUBITRON™ II DEPRESSED CENTRE GRINDING WHEEL T27

Performance Characteristics

- Premium Performance
- 3M™ precision-shaped grain for ultra fast cut and long life
- Specially formulated for use on stainless and mild steel
- Cool cutting for a higher quality and faster cut
- Fast, cool cutting helps extend the life of the tool

Diameter (mm)	Thickness (mm)	Arbor	Part number	Max RPM	Inner/case
115	7.0	22.23	65510	13,300	10/20
125	7.0	22.23	65509	12,200	10/20
150	7.0	22.23	65492	10,200	10/20
180	7.0	22.23	65493	8,500	10/20
230	7.0	22.23	65494	6,650	10/20

3M™ Cubitron™ II Cut and Grind Wheels

Performance Characteristics

Now you can cut AND grind without changing wheels! Cubitron™ II presents the new Cut and Grind Wheel, giving you the excellent durability and toughness of the Depressed Centre Grinding Wheel combined with the ultra fast and cool cutting of the Cubitron™ II Cut off Wheels.

Using Cubitron™ II Cut and Grind Wheels could save you up to 57% in cost in your grinding operations.

Optimised Performance for:

Cutting
Notching
Gouging
Fillet Weld Removal
and Bevelling.

3M™ CUBITRON™ II CUT AND GRIND WHEEL T27

Diameter (mm)	Thickness (mm)	Arbor	Part number	Max RPM	Inner/case
100	4.2	9.53	81155	15,300	10/20
100	4.2	15.88	81153	15,300	10/20
115	4.2	22.23	81157	13,300	10/20
125	4.2	22.23	81149	12,200	10/20
150	4.2	22.23	81152	10,200	10/20
180	4.2	22.23	81148	8,500	10/20
230	4.2	22.23	81154	6,650	10/20

3M™ Cubitron™ II Fibre Disc 987C and 982C

The coolest way to increase productivity

If you work with heat-sensitive materials like stainless steel, you'll appreciate the way the 987C disc digs in and cuts faster, lasts longer and requires less grinding pressure than conventional abrasives.

With the 982C, you get a disc that cuts faster, lasts longer and requires less grinding pressure than conventional abrasives. Without increasing the grinding force you currently use, you'll get longer life and more parts with a Cubitron II fibre disc.

Optimised for:

- Stainless steel
- High nickel alloys
- Superalloys
- Carbon steel

3M™ CUBITRON™ II FIBRE DISC 987C

Part No.	Size (mm)	Grade	Max RPM	MOQ
27772	100 x 16	36+	15,200	100
27773	100 x 16	60+	15,200	100
27774	100 x 16	80+	15,200	100
27619	115 x 22	36+	13,200	100
27645	115 x 22	60+	13,200	100
27649	115 x 22	80+	13,200	100
27618	127 x 22	36+	12,000	100
27646	127 x 22	60+	12,000	100
27650	127 x 22	80+	12,000	100
27744	180 x 22	36+	8,500	100
27742	180 x 22	60+	8,500	100
27743	180 x 22	80+	8,500	100

3M™ CUBITRON™ II FIBRE DISC 982C

Part No.	Size (mm)	Grade	Max RPM	MOQ
27769	100 x 16	36+	15,200	100
27770	100 x 16	60+	15,200	100
27771	100 x 16	80+	15,200	100
55075	115 x 22	36+	13,200	100
27623	115 x 22	60+	13,200	100
27627	115 x 22	80+	13,200	100
55073	127 x 22	36+	12,000	100
27624	127 x 22	60+	12,000	100
27628	127 x 22	80+	12,000	100
27698	180 x 22	36+	8,500	100
27740	180 x 22	60+	8,500	100
27741	180 x 22	80+	8,500	100

For optimum results us Cubitron™ II Ribbed Back Up Pads. 115mm 64860, 127mm 64861, 180mm 64862

3M™ Cubitron™ II Flap Disc 967A

The new benchmark of grinding power & performance

Now you can enjoy the awesome cutting power of 3M precision-shaped grain technology – in a versatile, long-lasting flap disc construction! New 3M Cubitron II Flap Discs 967A let you breeze through a wide range of tough jobs around the shop, including grinding, weld removal, deburring and more. Grinding and blending in a single step! Plus, they cut with less pressure, for greater operator comfort.

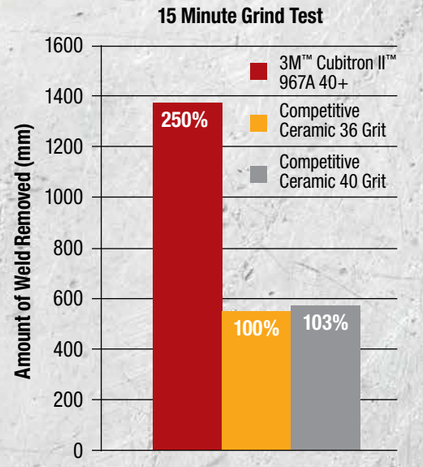
Cubitron II flap discs are flexible, so they easily follow curves and contours. They are less prone to gouging, and include a grinding aid, to help keep the disc cool on heat-sensitive metals. And, because their unique construction allows more abrasive material to be loaded on, they keep on cutting – long after other discs have called it quits!

Performance under pressure

Cubitron II Flap Discs 967A are ideal for a wide range of low to medium-high pressure applications, especially in paint prep and stainless steel fabrication where finish and gouge resistance are important.

Use Cubitron II Flap Discs 967A on stainless steel, carbon steel, aluminium and non-ferrous metals. Grinding aid helps keep product cool on heat-sensitive metals.

New 3M™ Cubitron™ II 967A Cuts Faster!



What does it mean for you?

- Increased throughput with faster grinding, more parts per disc
- Less time spent grinding can help reduce operator fatigue and tool wear
- Lower costs with long disc life, fewer disc changes

Product Availability

(All discs have Y-weight poly-cotton backing.)

	Part No.	Grade	Size	Max RPM (MOS)	Qty/ Case
FLAT	65066	40	115MM	13,300	10
	65067	60	115MM	13,300	
	65068	80	115MM	13,300	
	65069	40	125MM	12,200	
	65070	60	125MM	12,200	
	65071	80	125MM	12,200	
	65072	40	180MM	8,600	
	65073	60	180MM	8,600	
	65074	80	180MM	8,600	
CONICAL	65051	40	115MM	13,300	10
	65052	60	115MM	13,300	
	65053	80	115MM	13,300	
	65054	40	125MM	12,200	
	65055	60	125MM	12,200	
	65056	80	125MM	12,200	
	65060	40	180MM	8,600	
	65061	60	180MM	8,600	
	65062	80	180MM	8,600	

3M™ Cubitron™ II Roloc™ Durable Edge Disc 984F

When you're using a disc sander, you're relying on the edge of your abrasive disc to grind, blend and finish. If you've been frustrated by edge failures, make the switch to Cubitron™ II Roloc™ 984F. Its durable edge backing – combined with 3M precision-shaped grain – make this one tough disc that lasts longer and performs stronger.

- Features a durable edge backing for extended edge retention.
- Precision-shaped grain and grinding aid allow discs to run cooler.
- Precision-shaped grain self-sharpens for consistent and continuous cutting power with less pressure.
- Quality 3M™ Roloc™ buttons for an easy on/off attachment that stays in place.
- For grinding, blending, finishing and deburring applications on virtually all metal types.

Available in:

- 1.5", 2" and 3" • Grade 36+, 60+ and 80+ • Type TR

Size (MM)	Grade	MOS (RPM)	Part No.
38	36+	20,000	27700
50	36+	20,000	27701
50	60+	20,000	27709
50	80+	20,000	27717
75	36+	20,000	27702
75	60+	20,000	27710
75	80+	20,000	27718

Don't fear the edges

While edges on the workpiece may have caused premature edge wear on other discs, they can actually help precision-shaped grains fracture and extend the life of a Cubitron™ II Roloc™ 984F disc.

CHOOSE THE RIGHT ACCESSORIES FOR THE OPTIMISED RESULTS

		Characteristics	
Part No.	Size (MM)	Grade	Max RPM
45095	50 x 6 thread	Medium	25,000
A45096	50 x 6 thread	Hard	25,000
45092	50 x 6 thread	Medium	18,000
45091	50 x 6 thread	Hard	20,000
84998	75 x M14-2.0	Hard	20,000

Tips for best results

Size MM	Motor HP	RPM	Weight KG	Length MM	Height MM	Part No.
50	0.5	20,000	0.5	171.5	69.9	25124
75	1	15,000	1	209.6	82.6	25125

Use the total 3M system and optimize the Roloc™ Disc benefits with 3M™ Power Tools. You'll maximise the benefits of 3M precision-shaped grains by using 3M Power Tools with the ideal horsepower and operating speeds.

Complete the system for optimum performance with the 3M Roloc™ Disc Sander.

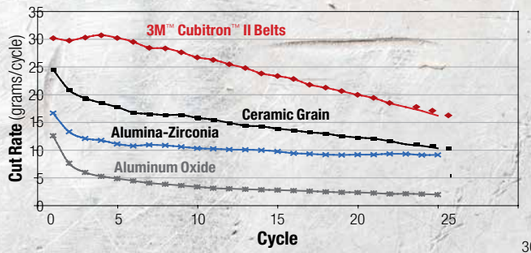
3M™ Cubitron™ II Belts

Forget everything you know about grinding with abrasive belts.

New 3M™ Cubitron™ II Abrasive Belts have raised the bar for grinding performance and productivity - thanks to breakthrough 3M technology that re-writes the rules for speed, consistency and belt life.

- Average up to 30% faster cutting on hard-to-grind metals than the next-best competitive belt.
- Cuts cooler - diverts heat from the workpiece and belt to the swarf. Helps eliminate burnishing and heat stress
- Significantly longer than conventional ceramic aluminium oxide belts.

3M™ Cubitron™ II Abrasive Belts CUT FASTER!

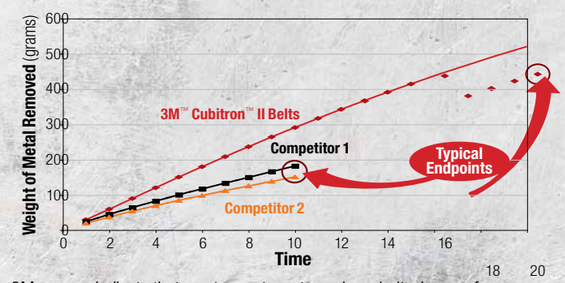


The evolution of high-performance grinding abrasives

In their day, each of the three competitive abrasive technologies shown on this graph represented a major advance in grinding performance. Now, in side-by-side comparisons of cutting rates on stainless steel, Cubitron II sets a new standard in productivity.

3M™ Cubitron™ II Abrasive Belts LAST LONGER!

Cumulative Cut, SS304: Typical End Point



3M surveys indicate that most operators stop using a belt when performance drops to 2/3 of its initial cut rate. As this graph shows, Cubitron II belts take twice as long to reach that end point as conventional ceramic abrasive belts. In addition, Cubitron II belts cut faster throughout their entire life. Bottom line? Not only is more work done per unit of time, but also much more total work per belt.

3M™ Cubitron™ II Belts

3M™ CUBITRON™ II ABRASIVE BELT SELECTION GUIDE

Conventional Product Grade	Recommended Cubitron II Replacement	Potential Improvements	
		Faster Cut, Longer Life	Reduced Sequence Steps
24	36+	✔	
36	36+	✔	
	60+		✔
40	36+	✔	
	40+		✔
	60+	✔	
50	36+	✔	
	40+		✔
	60+	✔	
	80+		✔
60	60+	✔	
	80+	✔	
80	80+	✔	
100	80+	✔	
	120+		✔
120	120+	✔	

Because of the enhanced efficiency and durability of Cubitron II belts, you can use a similar or finer grade than your current belt, while enjoying significantly faster cut rates and longer belt life. And in many cases, by switching to a Cubitron II belt, you can reduce the number of steps in your sequence, without sacrificing surface finish.

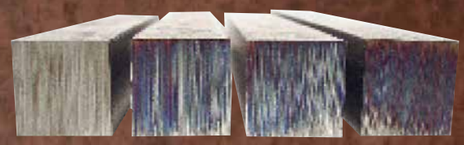
Improved Productivity
"With Cubitron II belts, we've reduced belt change-over time by over 50%"
- Casting House

Less Operator Fatigue
"Because Cubitron II belts cut faster, nearly all operators report that much less pressure is required throughout the life of the belt." **– Aerospace Parts Manufacturer**

Higher Cut Rates
"It took our operator 60 minutes to complete a work order using a competitor's belt. He completed the same size work order in just 45 minutes, using a Cubitron II belt."
– Precision Casting Company

How cool is this?

3M™ Cubitron™ II Belts are engineered to run cooler, eliminating metal discoloration/oxidation and reducing the chance of heat-related stress cracks.



This photo shows four identical 304 stainless steel bars after nine grinding cycles of ten seconds each. While the three bars that were ground using conventional ceramic abrasive belts show varying degrees of oxidation, the bar ground with a Cubitron II belt is free of burnishing.

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